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Groundwater Oxygenate Cleanup Levels for LUST Sites

v100502

State	Data current as of September 2002. All values in ug/L (or ppb).								Comments:
	MTBE	MTBE level or change in 2003?	TBA	DIPE	TAME	ETBE	EtOH	MeOH	
Alabama	20	No changes in 2002							No changes in any levels for 2002.
Alaska	None	Possible changes in 2003							Staff has option to require the compounds of concern to be sampled & analyzed.
Arizona	[35]	No changes in 2002							MTBE: 35 ppb = health-risk guidance level, not enforced for LUST cleanup; 20 ppb has been used on site-specific basis
Arkansas	20	No changes expected in 2003							MTBE: 20 ppb GW cleanup value. Groundwater discharge to surface water MTBE value = 7,000 ppb.
California	13 / 5	Unknown	12						MTBE: 13 ppb / 5 ppb = Primary MCL / Secondary MCL (both enforceable); TBA: 12 ppb = Provisional Action Goal (enforceable).
Colorado	Site-specific	Unknown							Cleanups are site-specific for ether and alcohol fuel oxygenate compounds.
Connecticut	70	Unknown							MTBE: 70 ppb
Delaware	180 / 10	Unknown	140	Possible changes in 2003	750				MTBE: 180 ppb / 10 ppb = action level / drinking water in public wells, respectively. TBA: 140 ppb action level. TAME: 750 ppb action level

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District of Columbia	20	Unknown							MTBE: 20 ppb
Florida	50 / 500	20 proposed for 2003	1,400 proposed in 2003				10,000	5,000 current level; 3,500 proposed in 2003	Cleanup Target Levels (CTL): MTBE: 50 ppb / 500 ppb = Potable / Non-Potable groundwater, respectively. Proposed CTLs for 2003: MTBE - 20 ppb, TBA - 1,400 ppb, MeOH - 3,500 ppb. In 2003 may also address DIPE/TAME/ETBE due to recent ETBE detections.
Georgia	None	No changes expected in 2003							Waiting for EPA MCL.
Hawaii	20 / 202,000	No changes expected in 2003							MTBE: 20 ppb / 202,000 ppb = potable / non-potable groundwater, respectively. Formerly in 1999 required GW analytical to include all fuel oxygenates, but no longer required.
Idaho	52	30 proposed for late 2002							MTBE: Tier 1 RBSL = 52 ppb. MTBE cleanup value expected to change to 30 ppb in late 2002
Illinois	70	No changes expected in 2003					571,000		MTBE: 70 ppb = groundwater standard. EtOH: 571,000 ppb groundwater standard.
Indiana	45 / 715	No changes expected in 2003							MTBE Closure Levels: 45 / 715 = residential / non-residential. September 2002 adoption of MTBE values as Closure Levels. Case-by-case basis for other fuel oxygenates.

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Iowa	None	No changes expected in 2003							No changes likely in 2002-2003.
Kansas	20	Unknown							MTBE: 20 ppb = action level. 1996: MTBE detected at 86% of LUST sites. MTBE:TBA ratios observed at 1:1.
Kentucky	None	No changes expected in 2003							Waiting for EPA MCL. Alternative drinking water source required for MTBE impacts \geq 50 ppb.
Louisiana	520	2003: Revisions during rule-making to address aesthetic effects							MTBE: 520 ppb = risk-based standard for drinking water aquifer (does not address aesthetic issues). MTBE level may be addressed downward due to aesthetic concerns TBA: risk-based process would address cleanup.
Maine	35 / 25	Unknown							MTBE: 35 ppb / 25 ppb = cleanup level / action level, respectively. Other fuel oxygenates analyzed at LUST sites. No testing for EtOH & MeOH.
Maryland	Site-specific / 20	No changes expected in 2003	TBA action level possible in 2003						MTBE: site-specific cleanup values / 20 ppb drinking water value, respectively. All oxygenates sampled at least once per LUST site. TBA: action level pending; currently sampled and tested.
Massachusetts	70 / 20-40 secondary std	No changes expected in 2003	Other oxygenates possible for 2003						MTBE: 70 ppb / 20-40 secondary standard = groundwater used as drinking water cleanup value / aesthetic secondary standard, respectively. Likely other fuel oxygenates to be addressed in 2003.

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Michigan	40	Unknown	3,900	30 proposed for 2002-2003	190 proposed for 2002-2003	49 proposed for 2002-2003	1,900,000	3,700 proposed for 2002-2003	MTBE: 40 ppb; TBA: 3,900 ppb; and MeOH: 3,700 ppb = all are generic residential & commercial drinking water criteria and screening levels. Proposed values from revised rules to be promulgated in 2002-early 2003.
Minnesota	70	Unknown						3,000	MTBE: 70 ppb = health-based value (HBV), generally preceding development of health risk limit (HRL). MeOH: 3,000 ppb = HRL. Efforts underway in 2002-2003 to revise rules.
Mississippi	None	Unknown							MTBE & other oxygenate data collected at Federal & Trust-Fund sites.
Missouri	40 / 400	Possible changes in 2003		Case-by-case	Case-by-case	Case-by-case			MTBE: 40 ppb / 400 ppb = Potable / Non Potable groundwater. Other oxygenates considered on case-by-case basis. Rule-making process underway into 2003 to establish risk-based groundwater values.
Montana	30	Unknown							MTBE: 30 ppb = cleanup level.
Nebraska	20 / site-specific	No changes expected in 2003							MTBE: 20 ppb / site-specific = Tier 1 RBSL action or cleanup level / Tier 2 drinking water level. Other oxygenate sampling at state-lead sites.
Nevada	20 / 200	No changes expected in 2003							MTBE: 20 ppb / 200 ppb = action levels for drinking water receptor / NPDES discharge or non-drinking water receptor, respectively

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New Hampshire	13	No changes expected in 2003	Level possible to be adopted in 2003		Level possible to be adopted in 2003				MTBE: 13 ppb = cleanup or action level. TBA: possible 12 ppb state MCL under consideration. Rule changes underway for end of 2002, with possible Public Health recommendations for TBA and TAME cleanup levels in 2003.
New Jersey	70	Possible changes in 2003	100	20,000				4,000	ISM=Interim Specific Criteria for consistency with SDWA; IS=Interim Specific Criteria. MTBE: 70 ppb = ISM cleanup value. IS cleanup values: TBA: 100 ppb; DIPE: 20,000 ppb; MeOH: 4,000 ppb.
New Mexico	100 / site-specific	No changes expected in 2003							MTBE: 100 ppb / site-specific = recommended cleanup value / site-specific value possible for drinking water.
New York	10 / 50	NYS-DOH has initiated the rule making process to lower the DOH Drinking Water Standard for MTBE. The proposal is currently under review.	50	50	50	50	50	50	MTBE: 10 ppb / 50 ppb = enforceable NYS-DEC Ambient Water Quality Surface and Groundwater Guidance Value / enforceable NY: DOH Drinking Water Standard, regulated as Unspecified Organic Contaminant (UOC). NYS-DEC Division of Environmental Remediation considers the 10 ppb (ug/L) guidance value in setting cleanup goals for groundwater sites contaminated with MTBE. Discovery of any levels of MTBE in groundwater will trigger an investigation of sources and "trends". Enforceable UOCs regulated at 50 ppb for other fuel oxygenates: TBA, DIPE, TAME, ETBE, EtOH & MeOH

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North Carolina	200	Possible changes in 2003						3,500	MTBE: 200 ppb = cleanup or action level. MTBE standards proposed for 70 ppb & 11.6 ppb - no change in 2002; possible for 2003.
North Dakota	None	No changes expected in 2003							No cleanup or action values for any fuel oxygenates.
Ohio	40	No changes expected in 2003	Level possible to be adopted in 2003						Corrective Action Rules to be revised in 2003. TBA possibly to be addressed.
Oklahoma	20 / site-specific	Unknown	Site-specific	Site-specific	Site-specific	Site-specific	Site-specific	Site-specific	MTBE: 20 ppb / site-specific = level of concern / site-specific standards can be required. If chemical is released from a regulated storage tank, site-specific standard can be required.
Oregon	20	No changes expected in 2003	Possible changes in 2003	Possible changes in 2003	Possible changes in 2003	Possible changes in 2003	Possible changes in 2003	Possible changes in 2003	MTBE: 20 ppb = aesthetic level for groundwater used as drinking water. Initiated sampling for TBA and fuel other oxygenates. Developing TPH risk standards in 2002 with TPH values expected to be published in December 2002. OR-DEQ references EPA Region 9 Preliminary Remediation Goals as possible screening levels
Pennsylvania	20	Unknown						4,900	MTBE: 20 ppb = residential cleanup standard. MeOH: 4,900 ppb = cleanup or action value.

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Rhode Island	40 / 5,000	No changes expected in 2003							MTBE: 40 ppb / 5,000 ppb = health advisory for drinking water receptor / cleanup value for non-potable groundwater.
South Carolina	40	Unknown							MTBE: 40 ppb = health-based cleanup or action value. SC has been sampling & testing other fuel oxygenates at about 100 sites over the past two years. Also, SC is assessing other oxygenates within 1,000-1,500 feet from release sites.
South Dakota	None	No changes expected in 2003							BTEX remediation also cleaning up any oxygenates that are present.
Tennessee	None	Possible changes in 2003							TN is re-writing cleanup regulations in 2003.
Texas	None / 15*	MTBE level expected in 2003	2,200*	2,400*	980*	24*	806*	12,000*	*Texas Risk Reduction Program values currently do not apply to Petroleum Storage Tank program. PST to join TRRP on September 1, 2003, at which time all fuel oxygenate cleanup levels become valid for PST sites. Current TRRP fuel oxygenate cleanup levels based upon groundwater ingestion, except MTBE (aesthetic value). MTBE aesthetic 15 ppb value can be applied to PST sites since exposure-based requirements can dictate cleanup levels.
Utah	70 / site-specific	No changes expected in 2003							MTBE: 70 ppb / site-specific = recommended cleanup level (RCL) / UT-DEQ RBCA site-specific cleanup level (SSLC).

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Vermont	40	Possible changes in 2003							MTBE: 40 ppb = cleanup or action level. Other fuel oxygenates undergoing detection frequency evaluation in 2002.
Virginia	Site-specific	No changes expected in 2003							MTBE: site-specific = site-by-site consideration of MTBE cleanup or action levels. Drinking water wells impacted with fuel oxygenates participate in the "Alternative Water Supply Program". Occassional detections of TAME.
Washington	20	Unknown							MTBE: 20 ppb = Method A cleanup level. WA-DOE Table 830-1, Required Testing for Petroleum Releases, specifies that "other additives and blending components of potential environmental significance may need to be considered for testing, including: TBA, TAME, ETBE, EtOH & MeOH".
West Virginia	[20-40]	Unknown							MTBE: [20-40 ppb] = site-specific values in the EPA DW Advisory range - likely 40 ppb applied. TBA: no value at present time. MTBE & TBA sampled in 2002 in drinking water wells across the state.
Wisconsin	60 / 12	Unknown							MTBE: 60 ppb / 12 ppb = Enforcement Standard (ES) / Preventative Action Limit (PAL) goal.

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Wyoming	200	Possible changes in 2003	3,200					16,000	Cleanup or action goals: MTBE: 200 ppb & TBA: 3,200 ppb. MTBE cleanup level may be revised to 40 ppb and TBA level re-evaluated in 2003 as part of rulemaking process. MeOH may increase from 16,000 ppb to 18,000 ppb in 2003 rulemaking process.